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09/871,199	05/31/2001	James M. Kain	20341-67618	9889

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EXAMINER

EDELL, JOSEPH F

ART UNIT	PAPER NUMBER
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3636

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/871,199

Applicant(s)

KAIN, JAMES M.

Examiner

Joseph F. Edell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Objections

1. Claims 2, 3, 6, 13, and 25 are objected to because of the following informalities:
 - a. claim 2, line 6 and line 10, "seat back" should read --the seat back--;
 - b. claim 3, line 1, "the arm includes a top surface" should read --the top surface of the arm is--;
 - c. claim 6, line 6, "seat back" should read --the seat back--;
 - d. claim 13, line 6, "seat back" should read --the seat back--;
 - e. claim 25, line 4, "support mount" should read --a support mount--.Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation "the flange" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the upper wing" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 2, 3, and 10-12, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,316,373 to Markel.

Markel discloses a juvenile vehicle seat assembly that includes all the limitations recited in claims 2, 3, and 10-12, as best understood. Markel shows an assembly having a seat 8 (see Fig. 1) with a seat bottom and back, a cantilevered armrest 10 projecting from the seat back, an arm 12 of the armrest with a free end, a top surface, and a support mount 14 appended to the arm and coupled to the seat back to support the arm in a cantilevered position, a first fastener 26 (see Fig. 4) coupled to the support mount and seat back to maintain the arm in the cantilevered position, a second fastener 26 coupled to the support mount and seat back and arranged to lie between the armrest and the seat bottom, a flange 18,20,22 (see Fig. 7) formed to include upper and lower wings extending above and below the arm and coupled to the fasteners, and a ridge 16 of the seat back positioned to lie adjacent to the upper wing wherein the first fastener is arranged to lie above the top surface of the arm to cause the arm to lie between the first fastener and the seat bottom when the arm is in the cantilevered position, the first fastener is coupled to apertures (Fig. 7) in the upper wing of the support mount and apertures in the ridge of the seat back to maintain the arm in the cantilevered position,

the top surface of the arm is adapted to support a forearm of a seated occupant, a lower edge of the arm is positioned to lie below the top surface and in space-apart relation to the seat and the second fastener is arranged to lie below the lower edge and above the seat bottom.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6-8, 10, and 12, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,478,372 B1 to Lemmeyer et al. in view of U.S. Patent No. 4,366,980 to Rowland.

Lemmeyer et al. disclose a seat assembly that is basically the same as that recited in claims 6-8, 10, and 12, as best understood, except that the support mount lacks upper wings, as recited in the claims. See Figures 1-7 of Lemmeyer et al. for the teaching that the seat assembly has a seat 10 (Fig. 2) with a seat bottom 14 (Fig. 2) and seat back 12 (Fig. 2), a cantilevered armrest 16 (Fig. 2) projecting from the seat back, an arm (Fig. 1B) with a free end 21 (Fig. 1B) included in the cantilevered armrest, a top surface 104 (Fig. 1B) of the arm adapted to support a forearm of an occupant, a lower edge 106 (Fig. 1B) of the arm spaced below the top surface, a support mount 19 (Fig. 1B) appended to the arm and coupled to the seat back wherein the support mount has

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inner and outer flanges (Fig. 1B) positioned to lie in spaced-apart relation to receive a ridge of the seat back in a U-shaped channel 101 (Fig. 1B) formed in the support mount between the inner and outer flanges, fastener apertures 120,122 (Figs. 1A-1B) formed in the inner and outer flanges and the ridge of the seat back, a first fastener (column 6, lines 6-12) coupled to the apertures in the support mount and seat back to maintain the arm in the cantilevered position, and a second fastener (column 6, lines 6-12) coupled to the apertures in the support mount and seat back and arranged to lie between the first fastener and the seat bottom. Rowland shows a seat assembly similar to that of Lemmeyer et al. wherein the seat assembly has a seat 50 (see Fig. 2) with a seat bottom and back 52,53, a cantilevered armrest 54 including an arm 202 with a free end, a top surface, and a support mount 206 appended to the arm and coupled to the seat back to support the arm in a cantilevered position, an upper wing 204 rising above the arm and away from the seat bottom and fastened to a ridge of the seat back.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the seat assembly of Lemmeyer et al. such that the each flange of the support mount is formed to include upper wings rising above the top surface of the arm and away from the seat bottom and the first fastener is coupled to the upper wing of each flange and the ridge of the seat back such that the first fastener is arranged to lie above the top surface of the arm, such as the seat assembly disclosed in Rowland. One would have been motivated to make such a modification in view of the suggestion in Rowland that the upper wing of the support mount provides a channel

length that mates exactly with the seat back to be fastened and supported along a vertically planar length of the seat back above the armrest.

8. Claims 2, 3, 9, 11, and 13-29, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemmeyer et al. in view of Rowland as applied to claims 6-8, 10, and 12 above, and further in view of U.S. Patent No. 207,764 to Mitchell.

Lemmeyer et al., as modified, disclose a seat assembly that is basically the same as that recited in claims 2, 3, 9, 11, and 13-29, as best understood, except that the armrest lacks lower wings and a load support panel, as recited in the claims. See Figure 1A of Lemmeyer et al. for the teaching that the seat back includes inner and outer panels contacting the inner and outer flanges of the support mount. Mitchell shows a seat assembly similar to that of Lemmeyer et al. wherein the seat assembly has a seat (see Fig. 2) including a seat bottom and back G,E, a cantilevered armrest J projecting from the seat back and including an arm with a free end, a top surface and a support mount appended to the arm and coupled to the seat back to support the arm in a cantilevered position, an outer flange of the support mount coupled to the arm and arranged to receive a ridge of the seat back, a lower wing of the flange that extends below the arm and toward the seat bottom, a first fastener coupled to the support mount and the seat back, a second fastener coupled to the lower flange and the seat back, and a generally flat load support panel (see column 2, lines 34-37) fixed to the cantilevered armrest to lie in a fixed position relative to the arm and the support mount and to engage the ridge of the seat back via a lower edge to block pivotable movement.

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of the cantilevered armrest toward the seat bottom about a pivot axis established by the first fastener. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the seat assembly of Lemmeyer et al. such that the U-shaped channel of the support mount includes lower wings extending below the arm toward the seat bottom wherein the second fasteners extend through the apertures of the support mount in lower wings and the aperture in the seat back, a generally flat load support panel fixed to the cantilevered armrest to lie in a fixed position relative to the arm and the support mount and to engage the ridge of the seat back to block pivotable movement of the cantilevered armrest toward the seat bottom about a pivot axis established by the first fastener, and a lower edge of the load support panel engaging the ridge of the seat back and lying in a position between the inner and outer flanges of the support mount, such as the seat assembly disclosed in Mitchell. One would have been motivated to make such a modification in view of the suggestion in Mitchell that the lower wing of the support mount firmly secures the armrest in the channel of the seat back and the lower support panel rests against the ridge of the seat back to compensate for any weakness resulting from the ridge being thinner than the seat back.

9. Claims 4 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemmeyer et al., as modified, in view of Mitchell as applied to claims 2, 3, 9, 11, and 13-29, as best understood above, and further in view of U.S. Patent No. 3,542,427 to Herpel.

Lemmeyer et al., as modified, disclose a seat assembly that is basically the same as that recited in claims 4 and 31 except that the fastener lengths are not specified, as recited in the claims. Herpel discloses a seat assembly similar to that of Lemmeyer et al. wherein the seat assembly has an armrest 28 (Fig. 1) including a first fastener 48 (Fig. 4) with a first length and a second fastener 56 (Fig. 4) with a second length longer than the first length. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the seat assembly of Lemmeyer et al. wherein the first fastener has a first length and the second fastener has a second length longer than the first length, such as the seat assembly disclosed in Herpel. One would have been motivated to make such a modification in view of the suggestion in Herpel that the longer second fastener allows for communication and attachment of both armrests.

10. Claims 5 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemmeyer et al., as modified, in view of Mitchell as applied to claims 2, 3, 9, 11, and 13-29, as best understood above, and further in view of U.S. Patent No 5,297,851 to Van Hekken.

Lemmeyer et al., as modified, disclose a seat assembly that is basically the same as that recited in claims 5 and 30 except that the fasteners lacks a barrel and screw, as recited in the claims. See column 6, lines 6-12 of Lemmeyer et al. for the teaching that the armrest include fasteners that are rivets, bolts, or other conventional fasteners. Van Hekken shows a seat assembly similar to that of Lemmeyer et al. wherein each fastener (Fig. 4) includes a barrel 50 (Fig. 4) with a first end and an opposite threaded open end,

an enlarged head (Fig. 4) coupled to the first end, and a screw 32 (Fig. 4) threaded to fit in and mate with the threaded open end of the barrel. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the seat assembly of Lemmeyer et al. for that teaching that each fastener includes a barrel with a first end and an opposite threaded open end, an enlarged head coupled to the first end, and a screw threaded to fit in and mate with the threaded open end of the barrel to couple the support mount to the seat back, such as the seat assembly disclosed in Van Hekken. One would have been motivated to make such a modification in view of the suggestion in Van Hekken that the threaded barrel and screw configuration of each fastener allow for easy attachment of plastic seat parts while lessening the instance of stress fractures in the plastic.

Response to Arguments

11. Applicant's arguments with respect to claims 2, 6, 10, 13, 15, 25, and 27 have been considered but are moot in view of the new ground(s) of rejection. Applicant's arguments with respect to the teachings of Lemmeyer et al. have been fully considered but they are not persuasive. Applicant argues that there would be no advantage in extending the U-shape portion of the cantilevered armrests so as to allow the upper fastener to lie above the top surface of the arm and to allow the lower fastener to lie below the arm toward the seat back. However, the above rejections go into great detail to articulate the motivation to modify the U-shaped portion of the cantilevered armrest to have the upper and lower wings with apertures for the fasteners. For example, the

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upper wings allow for exact mating of the support mount along a length of a vertical planar portion of the seat back above the armrest and the lower wings provides greater support to withstand downward forces applied to the armrest. Please not that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper.

Next, Applicant argues that the upper and lower shelves of the channel in the seat back provide a mechanical advantage by abutting the top and bottom surfaces of the armrest, and references column 5, line 55 to column 6, line 17 of Lemmeyer et al. However, no mechanical advantage or function of the channel in the armrest is specifically recited in the reference paragraph. If anything, the abutting of the top and bottom surfaces of the armrest within the channel of the upper and lower shelves provides a guide to align the armrest at a desired height in relation to the armrest so the fasteners may easily pass through the apertures in both the armrest and seat back. This function would not be lessen be simply widening the upper and lower shelves. Moreover, Mitchell clearly shows that upper and lower shelves may still be utilized in a seat back wherein the armrest has wings projecting therefrom.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph F. Edell whose telephone number is (571) 272-6858. The examiner can normally be reached on Mon.-Fri. 8:30am-5:00pm.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).



JE
October 13, 2005



Peter M. Cuomo
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